# MQ Fungal RNA Extraction Kit

**Cat No. FRE-M-001-50**

Size: 50 Preparations

MOLEQULE-ON®

| Components | Quantity |
|---|---|
| Buffer Rlysis FG | 25 ml |
| Universal GT Solution* | 18 ml |
| Universal NT Solution* | 6 ml |
| RNase Free Water | 5 ml |
| MQ Spin Column with 2ml Collection Tube | 50 |

## Preparations

* Universal GT Solution and Universal NT Solution are supplied in a concentrated form, before use; add 12 ml 96-100% ethanol to 18 ml concentrated universal GT solution and 24 ml 96-100% ethanol to 6 ml concentrated universal NT solution to make a work solution.

## Description

MQ Fungal RNA extraction Kit is designed for preparation of high quality total RNA from a wide range of fungal species. Fungal samples are lysed and homogenized by Buffer Rlysis FG. RNA in the whole homogeneity is selectively absorbed on spin column and other impurities are washed away. Total RNA is eluted from the membrane in the presence of RNase-Free Water in the final step. 3-5µg total RNA can be purified from 30mg filamentous fungi using this kit. Purified RNA is ready for most downstream applications such as RT-PCR, Northern Blotting, Poly A+ purification, nuclease protection and in vitro translation.

## Features

- Fast. Using a rapid spin-column format, the entire procedure takes approx. 20 minutes.
- High quality of RNA. OD260/OD280 ratio of purified RNA is generally > 1.8.
- Intact RNA: NO RNA degradation and integrity maintained.
- Economical.

## Storage

MQ Fungal RNA Extraction Kit should be store at 2-8°C.

## Materials and Equipment Required but Not Supplied

- Microcentrifuge capable of at least 12,000 × g.
- RNase-Free pipettes and pipette tips.
- Vortexer.
- RNase-Free Ethanol (96-100%).
- RNase-Free Microcentrifuge tubes (1.5 ml or 2 ml).

## Before Starting

- Care must be taken when working with RNA.
- It is important to maintain an RNAse-free environment, starting with RNA sample preparation and continue through purification and analysis. Use RNase free tubes, tips, gels.
- Wear gloves at all times.

## Procedure

1. Add 350 µl Buffer Rlysis FG into a RNase-Free 1.5 ml centrifuge tube.

2. Grind cell pellets collected from 0.1~2 ml fungi culture by centrifugation or 100-500 mg (wet weight) mycelia/spores in liquid nitrogen using a pestle.

3. Transfer the grounded sample to the RNase-Free 1.5 ml tube from step 1.

4. Incubate at room temperature for 5 minutes to make sure the cells are completely lysed.

5. Add 1/2 volume of ethanol, mix by inverting the tube.

6. Transfer the solution to the MQ spin column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

7. Add 0.5 ml of Universal GT Solution to the column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

8. Add 0.5 ml of Universal NT Solution to the column, centrifuge at 12,000 × g for 30 sec at room temperature, discard the flow-through.

9. Centrifuge the column at 12,000 × g for additional 30 sec at room temperature.
Note: This step is very important to remove the residual ethanol thoroughly.

10. Place the column in a new RNase-Free 1.5 ml centrifuge tube.

11. Add 50 µl RNase-free Water. Keep at room temperature for 2 minutes. Centrifuge at 12,000 × g for 30 sec at room temperature.

12. Store RNA solution at -80°C.